

REMARKS

Applicant respectfully requests examination of the above-identified application.

I. Disposition of the claims

Claims 1-7 and 9-20 are pending and stand rejected.

II. Rejection under 35 U.S.C. § 103(a)

Claims 1, 3-10, 12, and 14-16 are rejected as obvious over Ichinohe (WO 02/03928, translated by U.S. Apn. Pub. No. 2003/0082218) in view of Yonekura (U.S. Pat. No. 4,892,726), Wada (WO 00/042112, translated by U.S. Pat. No. 6,534,044) and Roidl (EP0523911). Office action dated Aug. 29, 2007, p. 3. According to the record for this rejection, Ichinohe fails to “teach the use of polymethylsilsesquioxane as a component in [a] cosmetic composition [and fails to teach to] selectively use polymethylsilsesquioxane as a component of the composition of example 11.” Office action dated Oct. 6, 2006, p. 4; see also final Office action dated Aug. 29, 2007, p. 3-4. To remedy these deficiencies, the rejection of record uses the teachings of Yonekura, which, according to the rejection, include “the use of polymethylsilsesquioxane powders as a component of … cosmetic compositions.” Office action dated Oct. 6, 2006, p. 4; see also final Office action dated Aug. 29, 2007, pp. 4-5. The rejection of record further applies Wada for reasons not relevant to traversing the rejection. Office action dated Oct. 6, 2006, p. 5; see also final Office action dated Aug. 29, 2007, p. 7.

In the relevant conclusion, the rejection reasoned that it “would have been obvious … to substitute a silicone emulsion with the polyfluoroalkylmethylsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane into the cosmetic composition because Ichinohe et al. teaches the use of fluorine-modified silicones for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluorodecaline, perfluorooctaine and the like in the cosmetic

and Roidl teaches the use of the polyfluoroalkylmethyldsiloxane, and most preferably the polymethyl-3,3,3-trifluoropropylsiloxane in a cosmetic.” Office action dated Aug. 29, 2007, p. 6.

A. The rejection is improper, because Examiner stated in no uncertain terms that the species of *one or more kinds of oil-soluble silicone resins selected from the group consisting of perfluoroalkyl group-containing polyalkylsiloxysilicate* are “patentably distinct species.”

This rejection was respectfully traversed, in the reply dated Nov. 29, 2007, because, in part, even if Roidl were to teach the use of the polyfluoroalkylmethyldsiloxane, when the Examiner made the restriction requirement and election of species requirement dated May 2, 2007, the Examiner stated in no uncertain terms that the species of *one or more kinds of oil-soluble silicone resins selected from the group consisting of perfluoroalkyl group-containing polyalkylsiloxysilicate* are “patentably distinct species.” Office Requirement dated May 2, 2007, p. 2. In the Advisory action dated Jan. 9, 2008, however, the Examiner responded that the election of species was for examination purposes. Advisory action, p. 2. Applicants respectfully disagree and maintain this reason for traversing the rejection.

A more careful reading of the record indicates that the requirement was withdrawn after consideration of Applicant’s arguments concerning a lack of a serious burden. See Office action dated Aug. 29, 2007, p. 2, second full paragraph (responding to the amendment and reply dated Jun. 4, 2007, pp. 2-3). The Examiner’s finding about patentable distinctness remains part of this record. Thus, Applicant respectfully maintains the position that a generalized motivation to substitute members of the class of polyfluoroalkylmethyldsiloxanes is improper.

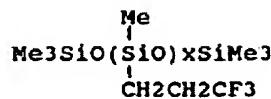
B. Roidl's polymethyl-3,3,3-trifluoropropylsiloxane is not necessarily an *oil-soluble silicone resin* as recited in claim 1.

This rejection was traversed, in the reply dated Nov. 29, 2007, because, in part, even if "Roidl teaches that ... the polymethyl-3,3,3-trifluoropropylsiloxane [has] been employed instead of silicone emulsions because they eliminate the tendency of skin irritation and flourosilicones have the advantage of functioning as a moisturizer and form films on the skin which act as a barrier against transepidermal water loss, with the result that the skin tends to be maintained in a softened condition," final Office action, p. 6, that would not necessarily make Roidl's polymethyl-3,3,3-trifluoropropylsiloxane an *oil-soluble silicone resin* as recited in claim 1.

As explained in the reply dated Nov. 29, 2007, *perfluoroalkyl group-containing polyalkylsiloxy silicate* of the present invention is an *oil-soluble silicone resin* typically having Q-units, i.e., $\text{Si}(-\text{O}-)_4$ and terminal M-units, i.e., $\text{Si}(-\text{O}-)\text{R}_3$, and having a network structure. In the Advisory action, the Examiner urged that Applicant is arguing limitations not in the claim. Advisory action, Jan. 9, 2008, p. 2. To the extent that the Examiner thought Applicant advocated that the claims require Q-units and terminal M units, Applicant agrees. There is, however, disagreement, which is clarified below.

Although the claims certainly do not require Q-units and terminal M-units per se, the claims recite an *oil-soluble silicone resin*. Applicant respectfully submits that there should be agreement that resins are formed due to a network structure.

Roidl's silicone oil, on the other hand, does not have a network structure:



Roidl, col. 2, ll. 35-40. Clearly, Roidl's polymethyl-3,3,3-trifluoropropylsiloxane is silicone oil having difunctional siloxane D units, i.e., $\text{Si}(\text{-R-})_2(\text{-O-})_2$ and terminal M units. It is linear, and it has no network structure. As a result, Roidl's polymethyl-3,3,3-trifluoropropylsiloxane is not *an oil-soluble silicone resin[.]*

Along these lines, Roidl states that "the preferred fluorosilicone fluid may be any polyfluoroalkylmethyldisiloxane." Roidl, col. 2, ll. 38-39. Roidl's polyfluoroalkylmethyldisiloxane has difunctional siloxane D units. It does not necessarily have a network structure. As a result, Roidl's polyfluoroalkylmethyldisiloxane is not necessarily *an oil-soluble silicone resin[.]*

Applicant respectfully submits that Roidl fails to disclose the *one or more kinds of oil-soluble silicone resins selected from the group consisting of perfluoroalkyl group-containing polyalkylsiloxysilicate* as recited in claim 1. Nor does each of the other cited references. Since silence cannot amount to a motivation to establish a *prima facie* case of obviousness, the present cosmetic composition is not obvious over Ichinohe in view of Yonekura, Wada, and Roidl. Thus, the rejection should be withdrawn.

C. Test data in the specification and test data not described in the specification but submitted in the attached Declaration under 37 C.F.R. § 1.132 of H. Ishii, who is in charge of developing cosmetic formulations in KANEBO Cosmetics, Inc., show that the present invention is non-obvious.

In the reply dated Nov. 9, 2007, Applicant urged that the *one or more kinds of oil-soluble silicone resins selected from the group consisting of perfluoroalkyl group-containing polyalkylsiloxysilicate* make it possible to have a superior film forming ability and make it possible to provide a cosmetic composition with superior durability. Applicant's position is consistent with the data below, which is presented in a more formalized manner in the attached Declaration under 37 C.F.R. § 1.132 of

H. Ishii filed herewith. But before presenting these data, Applicant provides some context so that the Examiner is better able to appreciate Applicant's position and these data.

Applicant submits that the conventional means for improving durability of a cosmetic composition is based on techniques of formulating materials having the property of improved water-repellency. However, some cosmetic compositions using the conventional means are still poor in actual performance, particularly when the composition is applied before or worn during water bathing, swimming, etc. (Cf. Roidl, col. 5, l. 5). Focusing on the property of improved water-repellency could only do so much to benefit a composition, i.e., because there is a limit on what this focus could do, as touched upon in the specification {page 1, line 14 to page 3 line 5}.

By proceeding against conventional wisdom, the present inventor, on the other hand, made it possible to improve durability of cosmetic composition by a completely different way. Rather than focusing on water repellency, the present inventor focused on improving durability of cosmetic composition by imparting a performance of water-runability thereto. At its most general level and without wishing to be bound to a particular theory, Applicant respectfully submits that the technique of water-runability includes, e.g., forming microscopic asperities on the surface of a coating film so that it can keep an air film thereon, eliminating interaction between the coating film and water thereby. Water that contacts such a film would flow downwards (slip down) the coating film having the property of water-runability. The technique of water-runability differs from the technique of water-repellency where water is simply repelled but does not flow (slip) down, as touched upon in the specification {page 3, line 9 to page 4, line 33}.

Further, unexpectedly and surprisingly, the present inventor has found and disclosed in the present specification that water-runability is unlikely to be exhibited at

a lower temperature and is more likely to be exhibited at a higher temperature *vide infra*. The present invention has made it possible, nevertheless, to form compositions that exhibit unexpected and surprising water-runability at a range of temperatures, i.e., there is no temperature dependency of water-runability in the range, thereby improving durability of cosmetic composition significantly, as touched upon in the present specification {page 4, line 34 to page 5, line 14}, and as demonstrated in the examples 1-5 in the present specification, which are discussed *vide infra*.

Furthermore, regarding the present cosmetic composition, formulating specific components, i.e., components (A) to (E) as recited in the claims, in specific amounts is not merely a result of randomly picking components (A) to (E), let alone picking them in the recited amounts. Applicant demonstrated as such by Working Examples of the present specification, which are presented in a reader friendly form in Table I below. Also, Table I contains other examples (Example A and Comparative Examples A to C) not found in the present specification but are found in the Ishii Declaration. The results are shown in the Table side-by-side to prove a point that picking (A)-(E) in the recited amount produces a composition having unexpected and surprising properties. (The numerical values surrounded with a box are outside of the scope of the present invention in terms of the identity and/or amount of the component.)

Table I. Comparative Data.

		Ex.1	Com.Ex.2	Com.Ex.3	Com.Ex.4	Com.Ex.5	Ex.A	Com.Ex.A	Com.Ex.B	Com.Ex.C
(A)	Octyl parabenoxycinnamate	10	10	10	10	10	10	10	10	10
	methylphenylpolysiloxane	4	35	4	4	4	17	4	4	17
(B)	Silicone elastomer spherical powder crushed paste	4	4	8	25	4	4	4	4	4
	Solution of trifluoropropyl-modified trimethylsiloxy silicate 50% by weight in cyclic silicone (pentamer)	1	1	8	1	20	1	1	1	
(C)	Solution of trimethylsiloxy silicate 50% by weight in cyclic silicone (pentamer)									1
	Decamethyloctylpentasiloxane	26	5	26	26	26	26	26	26	26
	Branched tetramer of methylsiloxane	10	0	10	10	10	2	10	10	2
(D)	Ethyl alcohol	3	3	3	3	3	3	3	3	3
	Dispersion of octylsilylated fine particle titanium oxide - 50% by weight of decamethyloctylpentasiloxane	8	8	8	8	8	8	8	8	8
	Octylsilylated fine particle zinc oxide	15	15	15	15	15	10	0	30	10
(E)	Highly polymerized dimethylpolysiloxane	1	1	1	1	1	1	1	1	1
(F)	1,3-Butylene glycol	5	5	5	5	5	5	5	5	5
Purified water		remainder	remainder	remainder	remainder	remainder	remainder	remainder	remainder	remainder
Evaluation of water-runability	Water-runability	Present	Weak	Weak	Weak	Present	Present	Not present	Not present	Weak
	Temperature dependency of water-runability	Not present	—	Present	Present	Present	Not present	—	—	Present
Evaluation of utilizability on skin	Lastingness of water-proof properties	50	23	29	25	50	50	24	48	34
	Water easily flows down from the skin	50	38	37	34	50	46	17	42	36
	Excellent in feeling	48	10	42	36	10	40	39	15	40

* Appendix A contains Table I showing the same data in landscape format.

The respective components were weighed and mixed together according to the compositions for Example A and Comparative Examples A to C shown in the above Table I. In Table I, the amounts of the respective components are given by parts by weight. The resultant cosmetic compositions were evaluated for their water-runability and utilizability on skin according to the evaluation methods disclosed in the specification of the present application except for five expert panelists were assigned for evaluation of utilizability on skin {page 26, line 21 to 27, line 28}. The results are

shown in Table I. For comparison, Example 1 and Comparative Examples 2 to 5 disclosed in the specification of the application are also shown in Table I.

It is clear from the data that formulating specific components in specific amounts is important for imparting a performance of water-runability without temperature dependency to a cosmetic composition.

As shown in Table I, Example 1 and Example A, according to the present cosmetic composition, showed excellent performance in water runability and utilizability on skin. Ishii Dec. p. 4.

On the other hand, the composition of Comparative Example 2, an example where component (A) and (D) were increased to an amount outside the range recited in the present claims, showed weak water-runability and poor durability, and there was a strong oily feeling when applied to a skin. Ishii Dec. p. 4.

The composition of Comparative Example 3, an example where component (B) and (C) were not formulated, showed both a weak water-runability and poor durability in addition to a temperature dependent water-runability. Ishii Dec. p. 4.

The composition of Comparative Example 4, an example where component (B) was increased to an amount outside the range recited in the present claims, also showed both a weak water-runability and poor durability in addition to a temperature dependent water-runability. Ishii Dec. p. 4.

The composition of Comparative Example 5, an example where component (C) was increased to an amount outside the range recited in the present claims, had a bad feeling and the cosmetic could not be taken off with a conventional cleansing agent. Ishii Dec. p. 4. Also, the composition of Comparative Example 5 showed a temperature dependent water-runability.

The composition of Comparative Example A, an example where component (E) was decreased to an amount outside the range recited in the present claims, showed no water-runability and poor durability. Ishii Dec. p. 4.

The composition of Comparative Example B, an example where component (E) was increased to an amount outside the range recited in the present claims, showed no water-runability. Ishii Dec. p. 4. Also, the composition of Comparative Example B produced a bad feeling.

The composition of Comparative Example C, an example where trimethylsiloxy silicate is used, showed weak water-runability and poor durability. Ishii Dec. pp. 4-5. In Comparative Example C, temperature dependency of water-runability appeared. Ishii Dec. p. 5.

It is clear from the data that formulating specific components in specific amounts is important for imparting a performance of water-runability without temperature dependency to a cosmetic composition. Ishii Dec. p. 5. Such performance imparts excellent durability to the present cosmetic composition which I believe could never be expected from the description of the references cited by the Examiner. Ishii Dec. p. 5.

Regarding Ichinohe, Yonekura and Wada Ichinohe does not refer to water-runability or temperature dependency thereof. In fact, there is no suggestion what components in what amounts should be formulated in order to impart water-runability without temperature dependency to a cosmetic composition.

There is no basis to predict such an effect. In addition, whether the pigment in the Example 11 of Ichinohe is water-repellent surface treated pigment or not is unclear. Its formulation amount is also unclear. Focus on component (C). The

present specification states that “perfluoro alkyl group-containing polyalkylsiloxy silicate was recognized to have about twice as effective as trimethyl siloxysilicate in imparting water-runability,” {page 12, lines 6 to 10}. The fact is clear from the comparison between Example A and Comparative Example C in Table I above. Further, in Comparative Example C, temperature dependency of water-runability appeared. Ishii Dec. p. 5. Perfluoroalkyl group-containing polyalkylsiloxy silicate is superior to trimethyl siloxysilicate in imparting a cosmetic composition water-runability without temperature dependency. Replacement of trimethyl siloxysilicate with Perfluoroalkyl group-containing polyalkylsiloxy silicate brings an unexpected advantageous effect. Ishii Dec. p. 5. Furthermore, selecting the specific formulation amount (i.e., 0.1 to 6 wt %) for perfluoroalkyl group-containing polyalkylsiloxy silicate is sufficient to impart water-runability without temperature dependency to a cosmetic composition. The fact is clear from the comparison between Example 1 and Comparative Example 3 and 5 in the specification.

Further, it is recited for the present invention to formulate (E) *12 to 30% by weight of one or more kinds of water-repellent surface treated pigments*. While compositions having values inside the recited range had water-runability, those having values outside the range did not. The fact is clear from the comparison between Example A and Comparative Example A and B in Table I above. Ishii Dec. p. 4. Neither Yonekura nor Wada discloses perfluoroalkyl group-containing polyalkylsiloxy silicate. They do not refer to water-runability or temperature dependency thereof. There is no suggestion what components in what amounts should be formulated in order to impart water-runability without temperature dependency to a cosmetic composition in Yonekura and Wada. For these reasons, the rejection should be withdrawn.

Patent
Atty. Dkt. No. 016912-0209
Application No. 10/507,501
Response to final Advisory action dated January 9, 2008

Claim 2 is rejected as obvious over Ichinohe as applied in the first rejection and further in view of Fukuchi (English Translation of JP 01211518). Office action of 10-06-2006, pp. 8-9; see also Office action, pp. 8-9. The rejection does not use Fukuchi to remedy the deficiencies that were noted above. Thus, this rejection should be withdrawn too.

Claims 11 and 13 are rejected as obvious over Ichinohe as applied in the first rejection and further in view of Hayashi (English Translation of JP 2000327948). Office action of 10-06-2007, pp. 9-10; see also final Office action, pp. 9-10. The rejection does not use Hayashi to remedy the deficiencies that were noted above. Thus, this rejection should be withdrawn too.

Conclusion

The present application is believed to be in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested after the end of the suspension period.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Patent
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The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. § 1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date 02-28-2008

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Enclosure: Appendix A. Comparative Data (1 page landscape); and
Ishii Declaration.

By Paul D. Strain (45943) For
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Appendix A. TABLE I. Comparative Data

		Ex. 1	Com. Ex. 2	Com. Ex. 3	Com. Ex. 4	Com. Ex. 5	Ex. A	Com. Ex. A	Com. Ex. B	Com. Ex. C
(A)	Octyl paramethoxycinnamate	10	10	10	10	10	10	10	10	10
	Methylphenylpolysiloxane	4	35	4	4	4	17	4	4	17
(B)	Silicone elastomer spherical powder crushed paste	4	4	0	25	4	4	4	4	4
(C)	Solution of trifluoropropyl-modified trimethylsiloxy silicate 50% by weight in cyclic silicone (pentamer)	1	1	0	1	20	1	1	1	1
	Solution of trimethylsiloxy silicate 50% by weight in cyclic silicone (pentamer)									1
(D)	Decamethylcyclopentasiloxane	26	5	26	26	26	26	26	26	26
	Branched tetramer of methylsiloxane	10	0	10	10	10	2	10	10	2
	Ethyl alcohol	3	3	3	3	3	3	3	3	3
(E)	Dispersion of octylsilylated fine particle titanium oxide - 50% by weight of decamethylcyclopentasiloxane	8	8	8	8	8	8	8	8	8
	Octylsilylated fine particle zinc oxide	15	15	15	15	15	10	0	30	10
(F)	Highly polymerized dimethylpolysiloxane	1	1	1	1	1	1	1	1	1
(G)	1,3-Butylene glycol	5	5	5	5	5	5	5	5	5
Purified water		remainder	remainder	remainder	remainder	remainder	remainder	remainder	remainder	remainder
Evaluation of water-runability	Water-runability	Present	Weak	Weak	Weak	Present	Present	Not present	Not present	Weak
	Temperature dependency of water-runability	Not present	—	Present	Present	Present	Not present	—	—	Present
Evaluation of utilization on skin	Lastingness of water-proof properties	50	23	29	25	50	50	24	46	34
	Water easily flows down from the skin	50	38	37	34	50	46	17	42	36
	Excellent in feeling	46	10	42	36	10	40	39	15	40